Heaps

Exercises

1- Given an array of integers, check to see if this array represents a max heap.

Solution: Heap.isMaxHeap()

2- Implement a min heap. In this implementation, store the items in an array of nodes. Each node should have two fields: key (integer) and value (string). Nodes should be heapified based on their keys.

Solution: MinHeap

3- Implement a min priority queue with the following operations:

- `add(String value, int priority)`
- `remove()`
- `isEmpty()`

Use the MinHeap class that you created in the last exercise. Items with a smaller priority should be moved to the beginning of the queue. Hint: use the priority of each item as the key in your min heap.

Solution: MinPriorityQueue